

**Bureau of Construction Codes
Michigan Uniform Energy Code
Frequently Asked Questions**

1. Which version of the International Energy Conservation Code (IECC) can be referenced for compliance to the Michigan Uniform Energy Code (MUEC)?

Answer: This is under review.

2. May compliance with the MUEC be demonstrated by alternative compliance reports such as REScheck?

Answer: Yes, in keeping with compliance option N1101.2.1(2) of the MUEC, the IECC allows for alternative design methods such as REScheck. The specific version of REScheck to be used for compliance is under review. The web address for REScheck is <http://www.energycodes.gov/>

3. Where the basement wall space is insulated with continuous foam insulation of an R-10 value, may the foam insulation be installed on the exterior basement up to grade and then applied to interior side for the rest of the basement height?

Answer: Yes, the installation described above meets the intent of the MUEC provided there is a minimum 12" horizontal overlap of insulating materials.

4. If a house is altered on the interior and refinished but not enlarged, is it subject to the requirements of the MUEC?

Answer: No, it would be an alteration thus not subject to the MUEC other than installations specifically referenced

in the code such as replacement windows and HVAC equipment.

5. If an addition is built on a house does it trigger upgrades to the mechanical systems?

Answer: Where there is an increase in energy use, separate equipment or upgrades would be required to comply with the MUEC.

6. Is a building permit required for replacement windows and if not, does the MUEC and code apply?

Answer: NO, many building departments view replacement windows as ordinary repairs thus exempt from permit requirements unless there is a structural modification to the opening or changing a room into a bedroom. However, Section R105.2 of the Michigan Residential Code (MRC) does not explicitly exempt window replacements from building permits; it does require work when exempted from permits to be done in accordance with the code or any other laws or ordinances of the jurisdiction. Section N1102.4 explicitly requires replacement fenestration to comply with Table N1102.5 of the MUEC.

7. Is a seasonal cottage subject to the MUEC?

Answer: Yes, provided the intended maximum rate of energy usage is 3.4 Btu/h or more.

8. If a residential group building is designed and constructed to the Michigan Building Code (MBC) what energy code is applicable?

Answer: The Michigan Uniform Energy Code Part 10a is applicable to buildings designed and constructed to the MBC. Thus the ASHRAE/IESNA Standard 90.1-1999 is applicable.

9. The MUEC indicates that compliance can be achieved by obtaining a Home Energy Rating System (HERS) score of 83. The HERS program changed in July of 2007, and the HERS scoring system of 0-100 has been replaced with a HERS index system of 500-0. What is considered an equivalent HERS index compliance option to replace the HERS score of 83 under the former scoring system?

Answer: N1101.2.1 item 4 of the MUEC allows compliance under the U.S. EPA Energy Star Program. A HERS index of 85 (minus the thermal bypass checklist requirement) now serves as the compliance option replacement for the HERS score of 83 under the former scoring system.

10. What is the passing index number for an Energy Star Home?

Answer: N1101.2.1 item 3 of the MUEC allows compliance under the U.S. EPA Energy Star Program. This will require certification by an individual who is a certified Home Energy Rater and the home must have a minimum index of 85 to pass in the southern portion of the lower peninsula (this includes the thermal bypass checklist requirement). The northern portion of the Lower Peninsula and the Upper Peninsula require an index of 80 to pass (including the thermal bypass checklist requirement). A map indicating the delineating line in Michigan for the required index of 85 or 80 can be found at the U.S. EPA website:

http://www.energystar.gov/ia/partners/bldrs_lenders_raters/downloads/PerfPathTRK_060206.pdf.

11. When permits are pulled for construction, how will the builder demonstrate to the building code official that either a HERS index of 85 (minus the thermal bypass checklist requirement) or an Energy Star designation will be achieved to show compliance with the code?

Answer: It is true that when builders work with a Home Energy Rater, they will not receive confirmation of either a HERS index of 85 (minus the thermal bypass checklist requirement) or an Energy Star certificate until construction is completed. A Home Energy Rater will be able to issue a projected rating (based on plans) for the builder to obtain their building permit. This will consist of the Home Energy Rating Certificate with a draft watermark. All aspects of the rating will be satisfied and then submitted to the Accredited HERS provider for completion. The Accredited Provider will issue back to the Rater a Home Energy Rating Certificate with the RESNET Accreditation Seal. The Rater will forward this to the builder for the Certificate of Occupancy.

12. If a home is constructed with the intent of demonstrating compliance with the HERS guideline with an index of 85 (minus the thermal bypass checklist requirement) or better and the home fails the rating test, what would happen if the resident was due to move in?

Answer: A home must comply with the code prior to obtaining a permanent certificate of occupancy, since blower door tests are typically conducted close to the homes completion, it could be prudent to issue a temporary

certificate of occupancy if the building is safe and only minor upgrades are required, but compliance with the code would need to be demonstrated within a prescribed time period.

13. If installing insulation and furring strips to finish a basement interior or constructing stud walls are permits required?

Answer: Yes, Section R105.2 of the MRC does not exempt this type of installation from permits. Inspections are necessary to insure the structural framing, insulation, thermal barriers, vapor barriers and electrical installations, etc. are installed in compliance with the requirements of the code.

14. Ice Melt Systems in residential driveways. When it is a part of the original permit to build the house, would it be appropriate for the code official to consider that residential Ice Melt systems are a "non-issue" under scoping exception 1, since the driveway is not a portion of a detached 1 & 2 family dwelling in the first place?

Answer: Ice melt systems in residential driveways are not subject to the MUEC.

15. Are heated detached garages/pole barns on residential lots subject to the MUEC?

Answer: Detached garages are subject to the MUEC if it's a conditioned space and mechanically heated in excess of 3.4 Btu/h per square foot of space. Some type of analysis or documentation is required to verify the energy consumption of the conditioned space is less than 3.4 Btu/h.

16. Are heated attached garages, which are a part of the original building permit subject to the MUEC?

Answer: An attached garage is subject to the MUEC if it's a conditioned space and mechanically heated in excess of 3.4 Btu/h per square foot of space. Some type of analysis or documentation is required to verify the energy consumption of the conditioned space is less than 3.4 Btu/h.

17. Are attached sunroom additions subject to the MUEC?

Answer: Sunroom additions are provided with the following exceptions:

- A. Portions of 1- and 2-family dwellings not heated or cooled.
- B. Portions of 1 and 2 family dwellings that have an intended maximum rate of energy usage less than 3.4 Btu/h per square foot of floor space.
- C. Conditioned sunroom additions having thermal isolation and served by a separate heating or cooling system, or which are thermostatically controlled as a separate zone of the existing system.
- D. Reduced U values of Table N1102.5, note e.

18. Provisions for fenestration replacement in existing homes (N1102.4, N1102.5, & scope, Section, N1101.1) – questions about the implementation of the code (cushion time) because they are sitting on existing stock that won't meet the fenestration requirements of the 2003 MUEC.

Answer: The 2003 MUEC went into effect October 24, 2008. Projects submitted for building permits on this date and after must comply with the 2003 MUEC.

19. Which version of the IECC should be used to demonstrate compliance as noted in Section N1102.2.1 item 2?

Answer: This is under review.

20. A project is being built in stages all using the same design plans previously reviewed and approved by the local building department. The building department was aware construction would take place in a phased manner. The construction plans he is using for these dwellings were reviewed and approved under the previous version of the MUEC. The attached advisory states “Once the plans have been approved or the permit has been issued, the code under which the project was approved is the applicable code throughout the completion of the project.” While it is being built in phases, it is one total project. The two questions are:

- a. Does he need to redesign these dwellings to comply with the 2003 MUEC?
- b. Does he need to redesign these dwellings to comply with the 2006 MRC?

Answer: When a phased project is presented the code is set at the one in effect at that time. That code is used until completion of the project; therefore, in the case described above neither the 2003 MUEC nor the 2006 MRC would be applied. However, when we approve a phased project there is a schedule for completion. We do not allow open ended completion schedules for such projects. This was evident when the commission granted exceptions to the sprinkler requirement for R-2 developments approved by local agencies under the 2000 code, by setting a time certain for completion of these projects after the 2003 code took effect.

21. Does the MUEC apply when replacement windows are installed inside of the existing window jams?

Answer: Yes.

22. Can the 2004 IECC Supplement and 2006 IECC be used in lieu of the 2003 IECC?

Answer: This is under review.

23. Are the definitions in Chapter 2 of the MRC applicable with regards to the 2003 MUEC?

Answer: Yes.

24. Can a builder or contractor that is a HERS Rater certify a project he or she is involved in?

Answer. No, a HERS Rater cannot submit documentation to a local enforcing agency certifying compliance with the MUEC for a project that they otherwise have a financial interest in. This creates a conflict of interest.